

REMARKS

In the above-identified Office Action the examiner rejected claims 1-10 under 35 USC 112, second paragraph for being indefinite. The examiner rejected claims 7, 9, and 10 under 35 USC 102(a) as being anticipated by US Patent No. 5,782,989 to Reuter ("Reuter"). The examiner rejected claims 1, 2, and 4 under 35 USC 103(a) as being unpatentable over US Patent No. 3,985,572 to Petermann, et al. ("Petermann"). The examiner rejected claims 1, 3, 5, and 6 under 35 USC 103(a) as being unpatentable over Petermann in view of EP 248,681 to Komabashiri, et al. ("Komabashiri"). The examiner rejected claim 5 under 35 USC 103(a) as being unpatentable over Petermann in view of US Patent No. 5,145,597 to Rodriguez, et al. ("Rodriguez"). And the examiner rejected claim 8 under 35 USC 103(a) as being unpatentable over Reuter in view of Komabashiri.

Claims 1-6 are directed to a process including: feeding a solution selected from the group consisting of water, and a mixture of caustic and at least one organic solvent through multiple pressure sources to a reactor having an agitator with blades and stationary pressure sources aimed at the agitator blades; and emptying the reactor; wherein the agitator is rotated while the solution is fed to the reactor. Claims 7-10, as amended, are directed to a process for cleaning a reactor including: feeding a liquid selected from the group consisting of an aqueous base, an organic solvent, and combinations thereof to the reactor; and emptying the reactor; wherein, the reactor is selected from the group consisting of a plate-frame heat exchanger, a plate-fin heat exchanger, and a spiral-plate heat exchanger.

Amendment to the claims 1 and 10 herein replacing "solution" with "liquid" herein are made to clarify the nature of the materials which are being fed to the reactor; all the materials being fed are liquids but several water and organic solvent are per se not solutions. Amendment to claim 1 to

separately recite “a caustic solution” finds support in the Specification at the bottom of page 2 to the top of page 3, and Example 4.

35 USC 102(b) REJECTION OF CLAIMS 7, 8, and 9

The examiner rejected claims 7, 9, and 10 under 35 USC 102(a) as being anticipated by Reuter. The examiner stated that Reuter discloses a process for cleaning a reactor comprising feeding a solution selected from an aqueous base, an organic solvent of isopropanol and acetone, emptying the reactor; wherein the reactor is a heat exchanger. Applicants respectfully traverse on the basis that each and every element of their claims are not disclosed by Reuter. In particular, Reuter does not disclose an aqueous base. Reuter discloses a cleaning solution containing a strong base which is soluble in the cleaning composition (col. 2, line 64- col. 3, line 2). Reuter’s cleaning composition contains acetone and one or more organic solvents which are soluble in acetone (col.4, lines 12-14), but there is no disclosure in Reuter of an aqueous cleaning composition or an aqueous base component of that composition. Further, Reuter does not disclose a reactor which is a heat exchanger but rather a system which includes a “reactor per se, heat exchanger, etc” (col. 6, lines 19-20) and certainly does not disclose a reactor which is a plate-frame heat exchanger, a plate-fin heat exchanger, or a spiral-plate heat exchanger. Therefore, Applicants respectfully urge that Reuter does not disclose each and every element in their claims 7, 9, and 10.

Applicants respectfully request the examiner to withdraw his rejection of claims 7, 9, and 10 under 35 USC 102(a) as being anticipated by Reuter.

35 USC 103(a) REJECTION OF CLAIMS 1, 2, and 4

The examiner rejected claims 1, 2, and 4 under 35 USC 103(a) as being unpatentable over US Patent No. 3,985,572 to Petermann, et al. (“Petermann”). The examiner points out the disclosures within Petermann and concedes that Petermann does not disclose stationary pressure sources

aimed at the agitator blades; wherein the agitator is rotated while the solution is fed to the reactor as a part of his apparatus or method. Nor does the examiner meet his burden of providing a prima facie case of obviousness by pointing out any teaching or suggestion within Petermann to modify the structure or method of Petermann by changing the essential nature of his apparatus, i.e., rotating pressure sources and a stationary agitator. In fact, Petermann points out that his cleaning nozzles "... are moved over the inner surface of the tanks along a complex predetermined path by means of a motor drive means which may be controlled by an electronic computer. This is important because the container tanks are often provided with baffles, agitator blades, and other obstructions inside such tanks ... Thus, the spray nozzles must move around such internal obstructions which requires a very complex motion of such nozzles that is accomplished by the computer in accordance with computer programs stored therein." (Col. 1, lines 30-43) (emphasis added). Applicants respectfully assert that the fair teaching of Peterman is that it is essential to provide exclusively movable nozzles and, indeed, programmable paths which must be controlled by a computer rather than by the reactor operator. This is the essence of Petermann's invention. There is no motivation to change Petermann's structure or add stationary sources to it or to expect success if so doing.

Applicants respectfully request the examiner to withdraw his rejection of their method of claims 1, 2, and 4 under 35 USC 103(a) as being unpatentable over Petermann.

35 USC 103(b) REJECTION OF CLAIMS 1, 3, 5, and 6

The examiner rejected claims 1, 3, 5, and 6 under 35 USC 103(a) as being unpatentable over Petermann in view of Komabashiri. The examiner argues Petermann as above and submits that Komabashiri discloses polymerization reactor cleaning and certain other elements such as 316 stainless steel. Applicants respectfully submit that the deficiencies of

Petermann as presented above stand and are not perfected by the teaching or suggestion of Komabashiri. Applicants respectfully submit that their method of claims 1, 3, 5, and 6 is not obvious over Petermann in view of Komabashiri.

Applicants respectfully request the examiner to withdraw his rejection of their method of claims 1, 3, 5, and 6 under 35 USC 103(a) as being unpatentable over Petermann in view of Komabashiri.

35 USC 103(b) REJECTION OF CLAIM 5

The examiner rejected claim 5 under 35 USC 103(a) as being unpatentable over Petermann in view of Rodriguez. The examiner argues Petermann as above and submits that Rodriguez discloses a polymerization reactor cleaning composition which contains an aqueous caustic solution. Applicants respectfully submit that the deficiencies of Petermann as presented above stand and are not perfected by the teaching or suggestion of Rodriguez. Applicants respectfully conclude that the method of their claim 5 is not obvious over Petermann in view of Rodriguez because the combination does not teach or suggest their method as claimed.

Applicants respectfully request the examiner to withdraw his rejection of their method of claim 5 under 35 USC 103(a) as being unpatentable over Petermann in view of Rodriguez.

35 USC 103(b) REJECTION OF CLAIM 8

The examiner rejected claim 8 under 35 USC 103(a) as being unpatentable over Rueter in view of Komabashiri. The examiner repeated his characterization of Reuter and stated that Komabashiri disclosed certain levels of aqueous base and organic solvent. The examiner stated that Reuter discloses a process for cleaning a reactor comprising feeding a solution selected from an aqueous base, an organic solvent of isopropanol and acetone, emptying the reactor; wherein the reactor is a heat exchanger. Applicants respectfully traverse. In particular, Reuter does not disclose an aqueous

base. Reuter discloses a cleaning solution containing a strong base which is soluble in the cleaning composition (col. 2, line 64- col. 3, line 2). Reuter's cleaning composition contains acetone and one or more organic solvents which are soluble in acetone (col.4, lines 12-14), but there is no teaching or suggestion in Reuter of an aqueous cleaning composition or an aqueous base component of that composition. Further, Reuter does not teach or suggest a reactor which is a heat exchanger but rather a system which includes a "reactor per se, heat exchanger, etc" (col. 6, lines 19-20) and certainly does not provide motivation to use a reactor which is a plate-frame heat exchanger, a plate-fin heat exchanger, or a spiral-plate heat exchanger. Nor does Komabashiri provide motivation to use the heat exchanger reactors of applicants' method. Applicants respectfully submit that the examiner has not met his burden of establishing a *prima facie* case of obviousness with his rejection of claim 8 for obviousness over Reuter in view of Komabashiri since he has provided no indication of the teaching, suggestion, or motivation within either Reuter or Komabashiri to combine the two references in order to solve the problem faced by appellants. The examiner has identified elements of applicants' method within the references, but has not pointed to the reason for combining them. "Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, must nevertheless be "clear and particular"" *Winner International Royalty Corporation v. Wang*, 202 F.3d 1340 quoting *In re Dembiczak*, 175 F.3d at 999, 50 USPQ2d at 1617.

Applicants respectfully request the examiner to withdraw his rejection of their method of claim 8 under 35 USC 103(a) as being unpatentable over Reuter in view of Komabashiri.

35 USC 112, SECOND PARAGRAPH REJECTION OF CLAIMS 1-10

The examiner rejected claims 1-10 under 35 USC 112, second paragraph for being indefinite. Claims 1 and 7 have been amended herein to

recite a Markush group. Claim 10 has been amended herein to recite that the liquid being added is acetone.

Applicants respectfully request the examiner to consider applicants' amendment and remarks and to pass applicants' claims 1-10, as amended, to allowance at this time. Applicants' agent is available in order to expedite the allowance of this case at 215-641-7822 or by FAX at 215-641-7027.

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Date: July 9, 2002

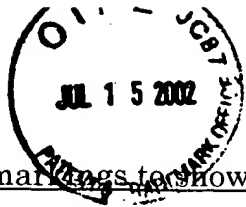
Respectfully Submitted,



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In the claims

1(amended). A process comprising:
feeding a [solution] liquid selected from the group consisting of water, a caustic solution, and a mixture of caustic and at least one organic solvent through multiple pressure sources to a reactor having an agitator with blades and stationary pressure sources aimed at the agitator blades; and emptying the reactor; wherein the agitator is rotated while the solution is fed to the reactor.

7(amended). A process for cleaning a reactor comprising:
feeding a [solution] liquid selected from the group consisting of an aqueous base, an organic solvent, and combinations thereof to the reactor;
and emptying the reactor; wherein, the reactor is selected from the group consisting of a plate-frame heat exchanger, a plate-fin heat exchanger, and a spiral-plate heat exchanger.

10(amended). The process according to claim 7 wherein, the [solution] liquid is acetone.

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CERTIFICATE OF MAILING

I hereby certify that the following correspondence is being deposited as first class mail with the United States Postal Service in an envelope addressed to the Assistant Commissioner for Patents, Washington, DC, 20231 on the date indicated next to my signature below.

Amendment

DATE: *July 9, 2002* SIGNATURE: *[Signature]*

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